

Listing of Claims:

1-32. (Canceled)

33. (Currently Amended) A method ~~for covalently affixing a biomolecule to a solid surface comprising contacting a biomolecule having an azido group covalently and operably affixed thereto with a solid surface having an alkynyl group operably affixed thereto under conditions permitting a 1,3-dipolar cycloaddition reaction to occur between the azido and alkynyl groups, thereby covalently affixing the biomolecule to the solid surface of making a composition comprising~~ contacting a solid surface having an alkynyl group operably affixed thereto with a deoxyribonucleic acid derivatized by having an azido group covalently and operably affixed thereto under conditions permitting a 1,3-dipolar cycloaddition reaction to occur between the alkynyl and azido groups so as to thereby make the composition.

34-38. (Canceled).

39. (Currently Amended) The method of claim 33, wherein the solid surface is ~~selected from the group consisting of~~ glass, silica, diamond, quartz, gold, silver, metal, polypropylene, and or plastic.

40. (Canceled)

41. (Original) The method of claim 39, wherein the solid surface is present on a bead, a chip, a wafer, a filter, a fiber, a porous media, or a column.

42. (Canceled)

43. (Canceled).
44. (Original) The method of claim 43, further comprising contacting in the presence of an agent which catalyzes a 1,3-dipolar cycloaddition reaction.
45. (Canceled)
46. (Canceled)
47. (Currently Amended) A method ~~for covalently affixing a biomolecule to a solid surface comprising contacting a biomolecule having an alkynyl group covalently and operably affixed thereto with a solid surface having an azido group operably affixed thereto under conditions permitting a 1,3-dipolar cycloaddition reaction to occur between the alkynyl and azido groups, thereby covalently affixing the biomolecule to the solid surface of making a composition comprising contacting a solid surface having an azido group operably affixed thereto with a deoxyribonucleic acid derivatized by having an alkynyl group covalently and operably affixed thereto under conditions permitting a 1,3-dipolar cycloaddition reaction to occur between the azido and alkynyl groups so as to thereby make the composition.~~
- 48-80. (Canceled)
81. (New) The method of claim 47, wherein the solid surface is glass, silica, diamond, quartz, gold, silver, metal, polypropylene, or plastic.
82. (New) The method of claim 81, wherein the solid surface is present on a bead, a chip, a wafer, a filter, a fiber, a

porous media, or a column.

83. (New) The method of claim 47, wherein the alkynyl group is covalently and operably affixed to a 5' end of the derivatized deoxyribonucleic acid.
84. (New) The method of claim 47, further comprising contacting in the presence of an agent which catalyzes a 1,3-dipolar cycloaddition reaction.
85. (New) The method of claim 47, further comprising reacting a deoxyribonucleic acid with an alkynyl group so as to make the derivatized deoxyribonucleic acid having an alkynyl group covalently and operably affixed thereto prior to contacting the derivatized deoxyribonucleic acid with the solid surface.
86. (New) The method of claim 47, further comprising reacting a solid surface with an azido group so as to make a solid surface having an azido group operably affixed thereto prior to contacting the derivatized deoxyribonucleic acid with the solid surface.
87. (New) The method of claim 33, wherein the azido group is covalently and operably affixed to a 5' end of the derivatized deoxyribonucleic acid.
88. (New) The method of claim 33, further comprising reacting a deoxyribonucleic acid with an azido group so as to make the derivatized deoxyribonucleic acid having an azido group covalently and operably affixed thereto prior to contacting the derivatized deoxyribonucleic acid with the solid surface.

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Serial No.: 10/735,081
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Page 8

89. (New) The method of claim 33, further comprising reacting a solid surface with an alkynyl group so as to make a solid surface having an alkynyl group operably affixed thereto prior to contacting the derivatized deoxyribonucleic acid with the solid surface.